

LAPORAN INVENTARISASI EMISI GAS RUMAH KACA IPI GARUT 2025

GREENHOUSE GAS EMISSIONS INVENTORY REPORT OF IPI GARUT 2025

Institut Pendidikan Indonesia Garut - 2025



Scope 1
Direct Emissions



Scope 2
Indirect Emissions



Scope 3
Other Indirect Emissions



KATA PENGANTAR

PREFACE

Puji dan syukur kami panjatkan ke hadirat Tuhan Yang Maha Esa, karena atas rahmat dan karunia-Nya Laporan Inventarisasi Emisi Gas Rumah Kaca Institut Pendidikan Indonesia Garut Tahun 2025 ini dapat disusun dan diselesaikan dengan baik. Laporan ini merupakan bagian dari komitmen institusi dalam mendukung implementasi konsep green campus serta upaya nyata dalam merespons isu global terkait perubahan iklim. Melalui pengukuran emisi karbon yang mengacu pada standar internasional GHG Protocol, institusi berupaya untuk mengidentifikasi, mengkuantifikasi, serta memahami sumber-sumber emisi gas rumah kaca yang dihasilkan dari seluruh aktivitas kampus. Hasil pengukuran ini diharapkan dapat menjadi dasar dalam penyusunan kebijakan dan strategi pengelolaan lingkungan yang lebih efektif, terarah, dan berkelanjutan. Selain itu, laporan ini juga berfungsi sebagai data awal (baseline) untuk memantau perkembangan emisi di masa mendatang, sekaligus mendorong partisipasi aktif seluruh sivitas akademika dalam upaya pengurangan jejak karbon. Kami menyadari bahwa laporan ini masih memiliki keterbatasan. Oleh karena itu, masukan dan saran yang konstruktif sangat kami harapkan guna penyempurnaan di masa yang akan datang. Akhir kata, kami mengucapkan terima kasih kepada seluruh pihak yang telah berkontribusi dalam penyusunan laporan ini. Semoga laporan ini dapat memberikan manfaat serta menjadi langkah awal yang kuat dalam mewujudkan kampus yang berkelanjutan dan ramah lingkungan.

Praise and gratitude are extended to God Almighty for His grace and blessings, which have enabled the completion of the *Greenhouse Gas Emissions Inventory Report of IPI Garut 2025*. This report represents a tangible manifestation of the institution's commitment to advancing the *green campus* initiative and addressing global challenges related to climate change. By adopting the internationally recognized GHG Protocol, this study systematically identifies, quantifies, and analyzes greenhouse gas emission sources arising from various campus activities. The findings presented in this report are expected to serve as a fundamental basis for developing effective, targeted, and sustainable environmental management policies. Furthermore, this report provides essential baseline data for monitoring emission trends over time, while also fostering greater awareness and active participation among the academic community in reducing carbon footprints. We acknowledge that this report may still have limitations. Therefore, constructive feedback and suggestions are highly appreciated to enhance future improvements. We would also like to express our sincere appreciation to all parties who have contributed to the completion of this report. It is our hope that this report will provide meaningful insights and serve as a strong foundation for advancing sustainability efforts toward a greener and more environmentally responsible campus.

Garut, 2025

Head of Campus Sustainability
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I. Pendahuluan

Pengukuran emisi karbon merupakan bagian penting dari upaya keberlanjutan kampus, khususnya dalam mendukung implementasi konsep green campus serta memenuhi kebutuhan pelaporan lingkungan yang mengacu pada standar internasional. Dalam konteks ini, Institut Pendidikan Indonesia Garut pada periode tahun 2025 melakukan pengukuran emisi karbon sebagai langkah strategis untuk memahami kontribusi aktivitas kampus terhadap perubahan iklim. Kegiatan ini tidak hanya bertujuan untuk mengidentifikasi sumber emisi utama, tetapi juga menjadi dasar dalam penyusunan kebijakan pengelolaan lingkungan yang lebih efektif dan berkelanjutan di lingkungan institusi. Lebih lanjut, pengukuran emisi karbon ini menjadi bagian dari komitmen institusi dalam mendukung agenda pembangunan berkelanjutan serta merespons isu global terkait perubahan iklim. Aktivitas operasional kampus, seperti penggunaan energi listrik, konsumsi bahan bakar, mobilitas sivitas akademika, hingga pengelolaan limbah, memiliki potensi kontribusi terhadap peningkatan emisi gas rumah kaca. Oleh karena itu, diperlukan pendekatan yang sistematis dan terukur untuk memastikan bahwa setiap sumber emisi dapat diidentifikasi, dihitung, dan dikelola secara tepat.

Selain itu, hasil pengukuran emisi karbon diharapkan dapat menjadi landasan dalam perencanaan program mitigasi yang terarah, seperti efisiensi energi, penggunaan energi terbarukan, optimalisasi sistem transportasi kampus, serta pengelolaan limbah yang lebih ramah lingkungan. Data yang dihasilkan juga berfungsi sebagai baseline untuk memantau tren emisi dari waktu ke waktu, sehingga institusi dapat mengevaluasi efektivitas kebijakan yang telah diterapkan dan melakukan perbaikan secara berkelanjutan. Dengan demikian, pengukuran emisi karbon tidak hanya bersifat administratif atau pelaporan semata, tetapi juga menjadi instrumen penting dalam transformasi kampus menuju lingkungan yang lebih hijau, efisien, dan bertanggung jawab secara ekologis. Upaya ini sekaligus mencerminkan peran aktif Institut Pendidikan Indonesia Garut dalam mendukung gerakan global pengurangan emisi

I. Introduction

Carbon emission measurement is an essential component of campus sustainability efforts, particularly in supporting the implementation of the green campus concept and fulfilling environmental reporting requirements aligned with international standards. In this context, the Institut Pendidikan Indonesia Garut conducted a carbon emission assessment during the 2025 period as a strategic initiative to understand the contribution of campus activities to climate change. This activity is not only intended to identify the primary sources of emissions but also to serve as a foundation for developing more effective and sustainable environmental management policies within the institution. Furthermore, this carbon emission measurement reflects the institution's commitment to supporting sustainable development agendas and responding to global climate change issues. Various campus operational activities such as electricity consumption, fuel usage, mobility of academic communities, and waste management have the potential to contribute significantly to greenhouse gas emissions. Therefore, a systematic and measurable approach is required to ensure that each emission source can be accurately identified, quantified, and properly managed.

In addition, the results of the carbon emission assessment are expected to provide a basis for planning targeted mitigation programs, including energy efficiency initiatives, the adoption of renewable energy, optimization of campus transportation systems, and more environmentally friendly waste management practices. The data generated also serve as a baseline for monitoring emission trends over time, enabling the institution to evaluate the effectiveness of implemented policies and make continuous improvements. Thus, carbon emission measurement is not merely an administrative or reporting exercise, but also a crucial instrument in transforming the campus into a greener, more efficient, and environmentally responsible institution. This effort further reflects the active role of the



gas rumah kaca dan pembangunan berkelanjutan.

Institut Pendidikan Indonesia Garut in contributing to global initiatives for reducing greenhouse gas emissions and advancing sustainable development.

II. Tujuan

Adapun tujuan dari pengukuran emisi karbon ini adalah untuk: (1) mengidentifikasi dan mengkuantifikasi sumber-sumber emisi gas rumah kaca yang dihasilkan dari seluruh aktivitas kampus; (2) menyediakan data dasar (baseline) emisi sebagai acuan dalam penyusunan strategi penurunan emisi di masa mendatang; (3) meningkatkan kesadaran sivitas akademika terhadap pentingnya pengelolaan lingkungan dan pengurangan jejak karbon; serta (4) mendukung penyusunan laporan keberlanjutan institusi yang selaras dengan standar nasional maupun internasional. Dengan adanya tujuan tersebut, pengukuran ini diharapkan menjadi langkah awal yang konkret dalam mewujudkan kampus yang ramah lingkungan dan berkelanjutan.

Lebih lanjut, tujuan tersebut juga mencerminkan upaya sistematis dalam membangun tata kelola lingkungan yang berbasis data (evidence-based policy), sehingga setiap kebijakan yang diambil oleh Institut Pendidikan Indonesia Garut memiliki dasar yang terukur dan dapat dipertanggungjawabkan. Data emisi yang dihasilkan memungkinkan institusi untuk menetapkan prioritas program secara lebih tepat, terutama dalam menentukan sektor-sektor dengan kontribusi emisi terbesar yang memerlukan penanganan segera.

Selain itu, pengukuran ini juga bertujuan untuk memperkuat integrasi prinsip keberlanjutan ke dalam kegiatan tridharma perguruan tinggi, baik dalam aspek pendidikan, penelitian, maupun pengabdian kepada masyarakat. Dengan demikian, isu perubahan iklim dan pengelolaan lingkungan tidak hanya menjadi tanggung jawab administratif, tetapi juga menjadi bagian dari budaya akademik yang terus dikembangkan. Hal ini diharapkan dapat mendorong partisipasi aktif seluruh sivitas akademika dalam mendukung inisiatif pengurangan emisi, baik melalui perubahan perilaku sehari-hari maupun melalui inovasi dan

II. Objectives

The objectives of this carbon emission measurement are as follows: (1) to identify and quantify the sources of greenhouse gas emissions generated from all campus activities; (2) to provide baseline emission data as a reference for developing future emission reduction strategies; (3) to enhance awareness among the academic community regarding the importance of environmental management and carbon footprint reduction; and (4) to support the preparation of institutional sustainability reports in alignment with national and international standards. Through these objectives, this measurement is expected to serve as a concrete initial step toward realizing an environmentally friendly and sustainable campus.

Furthermore, these objectives reflect a systematic effort to establish data-driven environmental governance (evidence-based policy), ensuring that every policy adopted by the Institut Pendidikan Indonesia Garut is grounded in measurable and accountable data. The resulting emission data enable the institution to set program priorities more effectively, particularly in identifying sectors with the highest emission contributions that require immediate attention.

In addition, this measurement aims to strengthen the integration of sustainability principles into the tridharma of higher education, encompassing education, research, and community service. In this way, issues related to climate change and environmental management are not merely administrative responsibilities but become an integral part of the evolving academic culture. This is expected to encourage active participation from all members of the academic community in supporting emission reduction initiatives, both through everyday behavioral changes and through innovation and research oriented toward environmental solutions.



penelitian yang berorientasi pada solusi lingkungan.

Pada akhirnya, pencapaian tujuan pengukuran emisi karbon ini diharapkan mampu meningkatkan kredibilitas institusi dalam pelaporan kinerja lingkungan, memperkuat posisi kampus dalam jaringan green campus baik di tingkat nasional maupun global, serta berkontribusi secara nyata dalam upaya mitigasi perubahan iklim yang lebih luas.

III. Metodologi

Metodologi yang digunakan dalam pengukuran ini mengacu pada GHG Protocol, yang merupakan standar global dalam akuntansi dan pelaporan emisi gas rumah kaca. Berdasarkan pendekatan ini, emisi diklasifikasikan ke dalam tiga kategori utama, yaitu Scope 1 (emisi langsung dari sumber yang dimiliki atau dikendalikan oleh institusi), Scope 2 (emisi tidak langsung dari konsumsi energi listrik), dan Scope 3 (emisi tidak langsung lainnya yang berasal dari aktivitas pendukung seperti transportasi, limbah, dan rantai pasok). Dengan menggunakan kerangka kerja ini, pengukuran emisi karbon di Institut Pendidikan Indonesia Garut diharapkan dapat menghasilkan data yang komprehensif, akurat, dan dapat dibandingkan secara internasional, sehingga mendukung transparansi serta upaya pengurangan emisi secara berkelanjutan.

Lebih lanjut, penerapan metodologi ini melibatkan beberapa tahapan penting, mulai dari penentuan batasan organisasi (*organizational boundary*) dan batasan operasional (*operational boundary*), identifikasi sumber emisi, pengumpulan data aktivitas, hingga perhitungan emisi menggunakan faktor emisi yang relevan. Setiap tahapan dilakukan secara sistematis untuk memastikan bahwa seluruh sumber emisi yang signifikan dapat tercakup dalam perhitungan, serta meminimalkan potensi ketidakpastian dalam hasil akhir.

Dalam implementasinya, Scope 1 mencakup emisi dari penggunaan bahan bakar pada kendaraan operasional kampus maupun peralatan yang menggunakan bahan bakar fosil. Scope 2 berfokus pada konsumsi energi listrik yang digunakan dalam kegiatan perkantoran,

Ultimately, achieving the objectives of this carbon emission measurement is expected to enhance the institution's credibility in environmental performance reporting, strengthen its position within green campus networks at both national and global levels, and contribute meaningfully to broader climate change mitigation efforts.

III. Methodology

The methodology employed in this measurement refers to the GHG Protocol, which is a globally recognized standard for greenhouse gas accounting and reporting. Based on this framework, emissions are classified into three main categories: Scope 1 (direct emissions from sources owned or controlled by the institution), Scope 2 (indirect emissions from the consumption of purchased electricity), and Scope 3 (other indirect emissions arising from supporting activities such as transportation, waste, and supply chains). By adopting this framework, the carbon emission measurement conducted by the Institut Pendidikan Indonesia Garut is expected to produce comprehensive, accurate, and internationally comparable data, thereby supporting transparency and continuous emission reduction efforts.

Furthermore, the implementation of this methodology involves several key stages, including the determination of organizational boundaries (*organizational boundary*) and operational boundaries (*operational boundary*), identification of emission sources, collection of activity data, and calculation of emissions using relevant emission factors. Each stage is carried out systematically to ensure that all significant emission sources are accounted for, while minimizing potential uncertainties in the final results.

In practice, Scope 1 includes emissions from fuel consumption in campus operational vehicles as well as equipment that utilizes fossil fuels. Scope 2 focuses on electricity consumption used in offices, classrooms, laboratories, and other supporting facilities. Meanwhile, Scope 3 encompasses a broader



ruang kelas, laboratorium, dan fasilitas pendukung lainnya. Sementara itu, Scope 3 mencakup spektrum yang lebih luas, seperti mobilitas mahasiswa dan staf, perjalanan dinas, pengelolaan limbah, penggunaan kertas, hingga aktivitas lain dalam rantai pasok yang berkontribusi terhadap emisi tidak langsung.

Dengan pendekatan yang terstruktur ini, hasil pengukuran tidak hanya memberikan gambaran total emisi karbon, tetapi juga memungkinkan analisis yang lebih mendalam terhadap distribusi emisi di setiap kategori. Hal ini sangat penting dalam menentukan prioritas aksi mitigasi yang efektif, seperti efisiensi energi, pengurangan penggunaan bahan bakar fosil, serta optimalisasi sistem pengelolaan limbah dan transportasi. Selain itu, penggunaan standar GHG Protocol juga memastikan bahwa hasil pengukuran dapat diverifikasi, direplikasi, dan digunakan sebagai acuan dalam pelaporan keberlanjutan di tingkat nasional maupun internasional.

range of sources, including student and staff mobility, business travel, waste management, paper usage, and other activities within the supply chain that contribute to indirect emissions.

Through this structured approach, the measurement results not only provide an overview of total carbon emissions but also enable a more detailed analysis of emission distribution across each category. This is crucial for determining effective mitigation priorities, such as improving energy efficiency, reducing fossil fuel consumption, and optimizing waste management and transportation systems. Moreover, the use of the GHG Protocol ensures that the measurement results can be verified, replicated, and utilized as a reliable reference in sustainability reporting at both national and international levels.

IV. Batasan Organisasi dan Operasional

1. Batasan Organisasi

- Entitas : Institut Pendidikan Indonesia Garut
- Area : Seluruh fasilitas kampus (gedung perkuliahan, kantor, area publik)

2. Batasan Operasional

- Menggunakan pendekatan: Operational Control Approach (pengendalian operasional penuh oleh institusi)

IV. Organizational and Operational Boundaries

1. Organizational Boundary

- Entity: Institut Pendidikan Indonesia Garut
- Scope/Area: All campus facilities, including academic buildings, administrative offices, and public areas

2. Operational Boundary

- Approach Used: The Operational Control Approach, in which the institution has full operational control over the activities and emission sources being accounted for.



V. Klasifikasi Emisi (GHG Protocol)

Scope 1 (Emisi Langsung), emisi langsung dari aktivitas yang dikendalikan organisasi. Emisi dari sumber yang dimiliki/dikendalikan kampus:

- Genset (3 unit)
- Kendaraan operasional
- Kebocoran refrigeran AC

Scope 2 (Emisi Tidak Langsung – Energi), berasal dari konsumsi energi yang dibeli (listrik, panas, dll).

- Konsumsi listrik PLN
- Energi listrik dari PLTS (mengurangi emisi)

Scope 3 (Emisi Tidak Langsung Lainnya), mencakup seluruh emisi rantai nilai (aktivitas tidak langsung).

- Transportasi mahasiswa dan dosen
- Limbah kampus
- Konsumsi kertas
- Air bersih

V. Emission Classification (GHG Protocol)

Scope 1 (Direct Emissions)

Scope 1 emissions refer to direct emissions generated from activities that are owned or controlled by the organization. These emissions originate from sources within the campus boundary, including:

- Generators (gensets) (3 units)
- Operational vehicles
- Leakage of refrigerants from air conditioning (AC) systems

Scope 2 (Indirect Emissions – Energy)

Scope 2 emissions arise from the consumption of purchased energy, such as electricity and heat. The sources include:

- Electricity consumption supplied by the national grid (PLN)
- Electricity generated from solar power systems (PLTS), which contributes to emission reduction

Scope 3 (Other Indirect Emissions)

Scope 3 emissions encompass all other indirect emissions occurring across the value chain as a result of institutional activities. These include:

- Transportation of students and academic staff
- Campus waste generation
- Paper consumption
- Water consumption

VI. Identifikasi Sumber Emisi di Kampus IPI Garut

1. Infrastruktur Energi
 - PLTS Gedung PPG (3 kelas)
 - Lampu jalan tenaga surya (6 unit)
 - Lampu taman tenaga surya (15 unit)
 - Genset (3 unit)
2. Aktivitas Operasional
 - Konsumsi listrik harian
 - Mobilitas civitas akademika
 - Pengelolaan sampah

VI. Identification of Emission Sources at IPI Garut

1. Energy Infrastructure
 - Solar Power System (PLTS) at the PPG Building (3 classrooms)
 - Solar-powered street lighting (6 units)
 - Solar-powered garden lighting (15 units)
 - Generators (gensets) (3 units)
2. Operational Activities
 - Daily electricity consumption
 - Mobility of the academic community
 - Waste management activities



VII. Metodologi Perhitungan

Rumus Umum:

$$Emisi = Aktivitas \times Faktor Emisi$$

VII. Calculation Methodology

General Formula:

$$Emissions = Activity Data \times Emission Factor$$

Where:

- Activity Data refers to the quantified amount of activity that generates emissions, such as fuel consumption (liters), electricity usage (kWh), distance traveled (km), or waste generated (kg).
- Emission Factor represents the coefficient that converts activity data into greenhouse gas emissions, typically expressed in units such as kg CO₂e per unit of activity.

VIII. Estimasi Data Aktivitas

1. Konsumsi Energi

Sumber Energi	Konsumsi/Tahun
Listrik PLN	120,000 kWh
PLTS	6,000 kWh
Genset (Solar)	1,500 liter

2. Aktivitas Transportasi

Kategori	Estimasi
Mahasiswa	800 orang
Dosen & staf	120 orang
Rata-rata jarak	10 km/hari

3. Limbah

Jenis	Volume
Sampah organik	2 ton/tahun
Sampah anorganik	1 ton/tahun

VIII. Estimated Activity Data

1. Energy Consumption

Energy Source	Annual Consumption
Grid Electricity (PLN)	120,000 kWh
Solar Power (PLTS)	6,000 kWh
Diesel Generator	1,500 liters

2. Transportation Activities

Category	Estimate
Students	800 individuals
Lecturers & Staff	120 individuals
Average Distance	10 km/day

3. Waste Generation

Waste Type	Volume
Organic Waste	2 tons/year
Inorganic Waste	1 ton/year



IX. Hasil Perhitungan Emisi

1. Scope 1

Sumber	Emisi
Genset	4,0 ton CO ₂ e
Refrigeran	1,5 ton CO ₂ e
Total Scope 1	5,5 ton CO₂e

2. Scope 2

Sumber	Emisi
Listrik PLN	90 ton CO ₂ e
Pengurangan dari PLTS	-4.5 ton CO ₂ e
Total Scope 2	85,5 ton CO₂e

3. Scope 3

Sumber	Emisi
Transportasi	120 ton CO ₂ e
Limbah	10 ton CO ₂ e
Kertas & operasional	5 ton CO ₂ e
Total Scope 3	135 ton CO₂e

Total Emisi Karbon Kampus

$$\begin{aligned} \text{Total Emisi} &= 5,5 + 85,5 + 135 \\ &= \mathbf{226 \text{ ton CO}_2\text{e/tahun}} \end{aligned}$$

IX. Emission Calculation Results

1. Scope 1

Source	Emissions
Generators (<i>gensets</i>)	4.0 tons CO ₂ e
Refrigerants	1.5 tons CO ₂ e
Total Scope 1	5.5 tons CO₂e

2. Scope 2

Source	Emissions
Grid Electricity (PLN)	90 tons CO ₂ e
Reduction from Solar Power (<i>PLTS</i>)	-4.5 tons CO ₂ e
Total Scope 2	85.5 tons CO₂e

3. Scope 3

Source	Emissions
Transportation	120 tons CO ₂ e
Waste	10 tons CO ₂ e
Paper & Operational Activities	5 tons CO ₂ e
Total Scope 3	135 tons CO₂e

Total Campus Carbon Emissions

The total carbon emissions are calculated as the sum of all scopes:

$$\text{Total Emissions} = 5.5 + 85.5 + 135 = \mathbf{226 \text{ tons CO}_2\text{e/year}}$$



X. Analisis Kritis

1. Temuan Utama

- Scope 3 mendominasi (>50%) → pola umum organisasi
- Listrik PLN masih menjadi kontributor utama Scope 2
- Energi terbarukan masih sangat terbatas (<5%)

2. Interpretasi Akademik

- Struktur emisi kampus bersifat **transport-driven**
- Transisi menuju green campus belum signifikan
- Potensi reduksi terbesar ada di:
 - mobilitas
 - efisiensi energi

X. Critical Analysis

1. Key Findings

- Scope 3 emissions dominate the total emissions profile (greater than 50%), which is consistent with common patterns observed in many organizations.
- Grid electricity (PLN) remains the primary contributor to Scope 2 emissions.
- The share of renewable energy is still very limited (less than 5% of total energy consumption).

2. Academic Interpretation

- The campus emission structure is largely transport-driven, indicating that mobility-related activities are the most significant contributors to overall emissions.
- The transition toward a green campus has not yet reached a significant level of impact.
- The greatest potential for emission reduction lies in:
 - Improving mobility systems and reducing transportation-related emissions
 - Enhancing energy efficiency across campus operations.

XI. Rekomendasi Strategis

1. Jangka Pendek

- Audit energi gedung
- Digitalisasi (*paperless campus*)
- Kampanye transportasi bersama

2. Jangka Menengah

- Penambahan PLTS (multi-gedung)
- Sistem monitoring energi berbasis IoT
- Pengelolaan sampah berbasis 3R

3. Jangka Panjang

- *Net Zero Campus 2045* (align dengan visi)
- Integrasi ke UI GreenMetric
- *Carbon offset* program (*tree planting*)

XI. Strategic Recommendations

1. Short-Term Strategies

- Conduct comprehensive building energy audits
- Promote digitalization initiatives toward a paperless campus
- Implement campaigns encouraging shared and sustainable transportation

2. Medium-Term Strategies

- Expand solar power systems (PLTS) across multiple campus buildings
- Develop and implement IoT-based energy monitoring systems
- Strengthen waste management practices based on the 3R principles (Reduce, Reuse, Recycle)



3. Long-Term Strategies

- Achieve a Net Zero Campus target by 2045, aligned with the institutional vision
- Integrate sustainability performance into the UI Green Metric framework
- Develop carbon offset programs, such as tree-planting initiatives

XII. Kesimpulan

Pengukuran emisi karbon berbasis GHG Protocol memberikan gambaran komprehensif bahwa:

- Emisi terbesar kampus berasal dari aktivitas tidak langsung (Scope 3)
- Energi listrik masih menjadi faktor dominan dalam Scope 2
- Energi terbarukan sudah ada, namun belum signifikan

Dengan pendekatan strategis dan konsisten, IPI Garut memiliki peluang besar untuk menjadi **kampus berkelanjutan berbasis data (data-driven sustainability campus)**.

XII. Conclusion

The carbon emission measurement based on the GHG Protocol provides a comprehensive overview indicating that:

- The largest share of campus emissions originates from indirect activities (Scope 3).
- Electricity consumption remains the dominant contributor within Scope 2 emissions.
- Renewable energy has been introduced; however, its contribution is still not significant.

With a strategic and consistent approach, Institut Pendidikan Indonesia Garut has a strong opportunity to evolve into a data-driven sustainable campus (data-driven sustainability campus), where environmental policies and initiatives are guided by measurable and evidence-based outcome.